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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,549	01/23/2002	Jimmie Brooks Bolton	BOLT CIP	2378

7590

11/20/2003

Guy McClung
PMB 347,
16690 Champion Forest Dr.
Spring, TX 77379-7023

EXAMINER

EVANS, GEOFFREY S

ART UNIT PAPER NUMBER

1725

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/057,549		BOLTON ET AL.	
	Examiner		Art Unit	
	Geoffrey S Evans		1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-12, 15-17, 20 and 21 is/are rejected.
- 7) ☒ Claim(s) 4-6, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Please update in the specification the status of parent application 09/769,555, which is now U.S. Patent No. 6,428,858 B1.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "A METHOD FOR USING A LASER BEAM TO APPLY WEAR-REDUCING MATERIAL TO TOOL JOINTS".

Claim Rejections - 35 USC § 112

3. Claims 9 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 9 currently depends upon itself and it is unclear what element is being referenced by "the thickness" Is it the wear-reducing material or the "tool joint"? For the remainder of this office action claim 9 is treated as if it depended upon claim 8. Claim 21 is an indefinite omnibus claim. See MPEP Section 2173.05(r).
4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1,8,10,11,12,15,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schutz et al. in U.S. Patent No. 6,305,723 B1 in view of Ghasripoor et al. in U.S. Patent No. 5,997,248. Schutz et al. discloses a tool joint and 'plating' the tool joint by thermal spraying (see column 5, lines 25-30) but does not disclose using a laser to perform the thermal spraying. Instead Schulz et al. discloses using a flame, electric or plasma process to thermally spray the wear-reducing material. Ghasripoor et al. teaches that thermal spraying and laser heating are functional equivalent ways of applying the wear-reducing material (see column 3, lines 33-36), using laser heating to apply the wear-reducing material, and not heating the wear-reducing material above its melting point. It would have been obvious to adapt Schutz et al. in view of Ghasripoor et al. to provide this to protect the tool joint.

7. Claims 2,3,7 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schutz et al. in view of Ghasripoor et al. as applied to claim 1 above, and further in view of Dimitrienko et al.. Dimitrienko et al. teaches using a defocussed laser beam for

applying strengthening coatings. It would have been obvious to adapt Schutz et al. in view of Ghasripoor et al. and Dimitrienko et al. to provide this to quickly evenly treat the workpiece.

8. Claims 4,5,6,13, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claim 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. Claim 18 is allowed.

11. The non-patent literature listed on sheet No. 2 of the Information Disclosure Statement of 03/282002 is not of record in the IFW (Image File Wrapper). Please supply so that they can be considered with the next office action.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Liu in U.S. Patent No. 6,303,903 B1 focuses the laser beam to create a plasma. Copa et al. in U.S. Patent No. 4,265,747 discloses focuses the laser beam to create a plasma.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey S Evans whose telephone number is (703)-308-1653. The examiner can normally be reached on Mon-Fri 6:30AM to 4:00 PM, alternate Fridays off.


Application/Control Number: 10/057,549

Page 5

Art Unit: 1725

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (703)-308-3318. The fax phone number for the organization where this application or proceeding is assigned is (703)-305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0661.


Geoffrey S Evans
Primary Examiner
Art Unit 1725

GSE